

***DETAILED ACTION - ALLOWANCE***

***Claim Status***

Applicant's amendment filed October 9, 2009, in response to the Office action dated June 10, 2009 has been entered. Claim 62 has been amended, claims 87-92 cancelled and claims 95-99 newly added. Accordingly, claims 62, 67, 68, 70, 71, 76-82, 93 and 95-99 are pending in the application.

Claims 62, 67, 68, 70, 71, 76-82, 88, 89 and 93 were previously rejected under 35 U.S.C. §112, second paragraph as being indefinite. Applicant has amended base claim 62 to remove the indefinite language, and limit the degree of affinity for IFN- $\beta$ . Thus, the rejection is hereby withdrawn.

Claims 62, 67, 68, 70, 71, 76-82, 88, 89 and 93 were previously rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement and introducing new matter. Applicant has amended base claim 62, to language commensurate with that disclosed in the specification, thereby obviating the ground for rejection. Thus, the rejection is hereby withdrawn.

Claims 62, 67, 68, 70, 71, 76-82, 88, 89 and 93 were rejected under 35 U.S.C. §112, first paragraph, for lacking an enablement for the full scope of the invention. Applicant has amended base claim 62 to language commensurate with that of the enabled scope previously indicated. Hence, the rejection is hereby withdrawn.

Claims 88 and 89 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicant's cancellation of the claims renders their rejection moot. Thus, the rejection is hereby withdrawn.

Claims 62, 67, 68, 70, 71 and 76 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pichler et al. (J. Mol. Biol. 294:223-237; 1999); and claims 77-82 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pichler et al. (J. Mol. Biol. 294:223-237; 1999), in view of Campbell et al. (U.S. Patent Publication No.: 2001/0014333; priority to Feb. 20, 1996).

Applicant's arguments regarding the synergistic effect of the mutations in the IFNAR2 fusion protein in increasing the affinity of the receptor for IFN- $\beta$  up to 100-fold (limitations not

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taught or expected by Piehler et al.) are found persuasive. Accordingly, the rejections are hereby withdrawn.

***EXAMINER'S AMENDMENT***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David W. Clough, on February 5, 2010.

The application has been amended as follows:

***In the claims,***

Claim 77 has been amended as follows:

The number "75" have been replaced with the number "76", in the first line.

Claim 79 has been amended as follows:

The number "75" have been replaced with the number "76", in the second line.

***REASONS FOR ALLOWANCE:***

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest an IFNAR2 receptor consisting of mutations as set forth in SEQ ID NO: 2, wherein the mutations synergistically increase the affinity of the receptor for IFN- $\beta$  up to 100-fold. While the prior art of Piehler et al. had suggested introducing the combination of mutations in the receptor, the up to 100-fold increase in IFN- $\beta$  binding could not have been predicted.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Claims 62, 67, 68, 70, 71, 76-82, 93 and 95-99 are allowed.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FEREYDOUN G. SAJJADI whose telephone number is (571)272-3311. The examiner can normally be reached on 6:30 AM-3:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fereydoun G Sajjadi/  
Primary Examiner, Art Unit 1633